



SCIENCE

5

FOR FAMILIES

YOU ARE your child's first teacher. Learn how to support the goals of Oklahoma's academic standards and why they are important for your child. Please be in regular communication with your child's teachers and ask how you can support science learning at home. When schools and families work together as partners, it helps your child achieve academic excellence!

FIFTH GRADE

What to expect:

In fifth grade, students are able to answer more advanced scientific questions. These include: "When matter changes, does its weight change?", "How much water can be found in different places on Earth?", "Can new substances be created by combining other substances?", "How does matter work its way through ecosystems?", "Where does the energy in food come from, and what is it used for?", "How do shadows or the amount of daylight and darkness change from day to day?" and "How does the appearance of some stars change in different seasons?"

By the end of the school year, your child will:

- Develop an understanding that regardless of how matter changes form, its weight does not change.
- Determine if the mixing of two or more substances results in new substances.
- Create a model to describe how the geosphere (Earth's surface), biosphere (living organisms), hydrosphere (water) and atmosphere interact with one another.
- Describe and graph data to show how water is distributed on Earth.
- Develop a model to describe how matter is made of particles too small to be seen.
- Understand why and how plants get most of the materials they need to grow from air and water.
- Use models to describe how energy in animals' food was once energy from the sun.
- Develop an understanding of daily patterns of change in the length and direction of shadows, the amount of daylight and darkness and the seasonal appearance of some stars in the night sky.

What to do at home:

- Ask your child to cook with you and discuss how, when you mix two or more substances together, they sometimes form a new substance.
- Discuss how the construction of a new house or building might change the ecosystem from before the construction began.
- Go outside on clear nights and look at the stars. Ask your child to describe patterns they notice and explain how the sky looks different in the summer versus the winter.
- Research your town's local recycling program or facility.



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Fostering Curiosity

Children are naturally curious and want to learn about things that interest them. Since curiosity contributes to success in the classroom, it is important to encourage it at home. Play is a wonderful way to spark curiosity, so be sure to allow plenty of playtime. Encourage your child to ask questions, be creative, discover answers and explore the world.

Cultivate your child's curiosity with guiding questions like these:

- Do you think animals communicate? If so, how?
- What are the best things about nature?
- Does the night sky look the same every night of the year? Why or why not?

Your child will have plenty of questions. It's okay if you don't have the answer every time. The best response is always, "Let's find out together."

Fostering Communication

Families can play a role in helping their children learn to be good communicators by encouraging them to add new words to their vocabulary, express themselves and be good listeners. As children's communication skills grow, they are able to learn new ideas, get along with others and develop positive relationships and a strong self-image.

Cultivate your child's communication skills with questions like these:

- What do you think we should have for breakfast tomorrow?
- What goals can you set to make tomorrow better than today?
- What was your favorite part of the week and why?
- How did you help someone in need today?

Fostering Comprehension

Reading is a building block for success in all school subjects and a critical skill that develops with time and practice. Encourage your child to read for pleasure, and be a good role model by reading things you enjoy. Use the following questions to help fifth-graders understand what they are reading.

BEFORE READING

- Is this the type of book you usually choose? Why or why not?
- By looking at the cover, what do you think the author's reason for writing the book might be?
- What do you think the book will be about?

DURING READING

- Will you read a short section to me with feeling in your voice?
- What do you do when you don't understand what you just read?
- What resources can you use to understand words you aren't familiar with?

AFTER READING

- Give a summary of the book in 10 words.
- What problem did the main character face? What was the solution to that problem?
- What message is the author sharing with the reader? Why do you think that?